

Work Order ID 136853

September 14, 2015 2:08:35 PM

136853

Order shipping later
SO 12089
Oct 7/15
Page 1
01A0000

Item ID: D135-692-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Bearpaw Wearplate

Start Date: 9/14/2015 Start Qty: 2.00

2

Cust Item ID:

Required Date: 9/18/2015 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan:

SA

Date: 9/15/09

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

DSI9400

Rev A

100

Document Control

0.00

DAS
27
9-89

MCS 1509-21

100

DC

DOCUMENT CONTROL

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels per PPP D135-692-041 CHG001

DAS
02
9-89

SEP 21 2015

110

Packaging

0.00

110

Packaging

Memo

0.00

Packaging

DAS
27
9-89
SEP 16 2015



120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

DAS
02
9-89

SEP 21 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	☐ OTHER : _____			

Work Order ID 136853***136853***

Page 2

Item ID: D135-692-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Bearpaw Wearplate

Stop ***NS2***

Start Date: 9/14/2015 Start Qty: 2.00

2

Cust Item ID:

Required Date: 9/18/2015 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

0.00

130

Packaging

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D135-692-041

CHG001Location: _____ PPP Rev: FC 128DAS
02
9-09

SEP 21 2015

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.00

Quality Control

ML5

SEP 22 2015

20150922
SJA

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐																			

Picklist Print

September 14, 2015 2:08:42 PM

Page 1

Work Order ID: 136853

136853

Parent Item: D135-692-041

D135-692-041

Parent Item Name: Bearpaw Wearplate

Start Date: 9/14/2015

Required Date: 9/18/2015

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A new issue ECN1089 08-02-04 DD verified by:EC
IPP Rev:B ECN 1132 08-02-20 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MS21042L4

Purchased

No

110

Each

1,886.000

8

16

MS21042L4

Locknut

DAS
02
9-89

**

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

2

m124231

2

GA

112

m127813

112

ST260a

170

m130799

56

m131803

6

m132262

108

ST305

1602

m128300

8

m130388

7

m130922

97

m131618

12

m132123

56

m132382

1422

AN4-15A

Purchased

No

120

Each

160.0000

8

16

AN4-15A

Bolt

9-89 DAS
02

**

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

40

120449

40

ST343

120

m132551

120

SEP 16 2015

Picklist Print

September 14, 2015 2:08:42 PM

Page 2

Work Order ID: 136853

136853

Parent Item: D135-692-041

D135-692-041

Parent Item Name: Bearpaw Wearplate

Start Date: 9/14/2015

Required Date: 9/18/2015

Start Qty: 2.00

Required Qty: 2.00

D3719-041

Manufactured No

120 Each

3.0000

2 4

D3719-041

Wearplate

DAS
02
9-89

** 136854

DAS
27
9-89

DAS

Location

Loc Qty

Loc Code

ST617

3

121056

3

3

NAS1149D0463J

Purchased

No

120 Each

2,802.000

8 16

NAS1149D0463.J

WASHER

DAS
02
9-89

**

DAS
27
SEP 16 2015

DAS

Location

Loc Qty

Loc Code

GA

41

M129390

41

ST260a

1000

M133077

1000

ST269

1761

M129682

86

M130799

371

M132035

291

M132317

125

M132677

888

10

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D135-692 REV. A

REF. FAA STC: SR01042SE

The D135-692-041 Wearplate Kit can be installed on Dart D135-692-011 Bearpaw Installations. The D3719-041 Wearplates should be installed on the D3049-1 Bearpaws as shown in Figure 1 on sheet 2 of this service instruction. The bearpaw should otherwise be installed on the skidtube per installation instructions IIN-D135-692 Rev. A.

WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D135-692-041	2.24 lb	0.0 in	0.0 in-lb	199.7 in	447 in-lb
Wearplate Kit	1.0 kg	0.0 m	0.0 m-kg	5.07 m	5.1 m-kg

PARTS LIST

QTY	Part Number	Description
X	D135-692-041	Wearplate Kit
2	D3719-041	Wearplate
8	AN4-15A	Bolt
8	AN960JD416	Washer
8	MS21042L4	Nut (or MS21042-4)

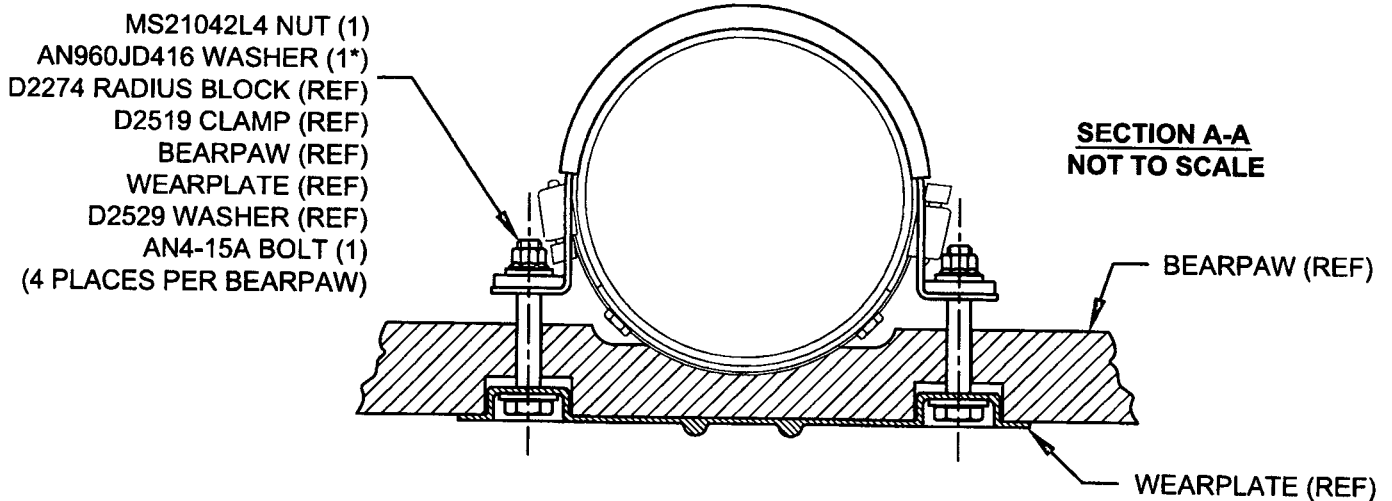
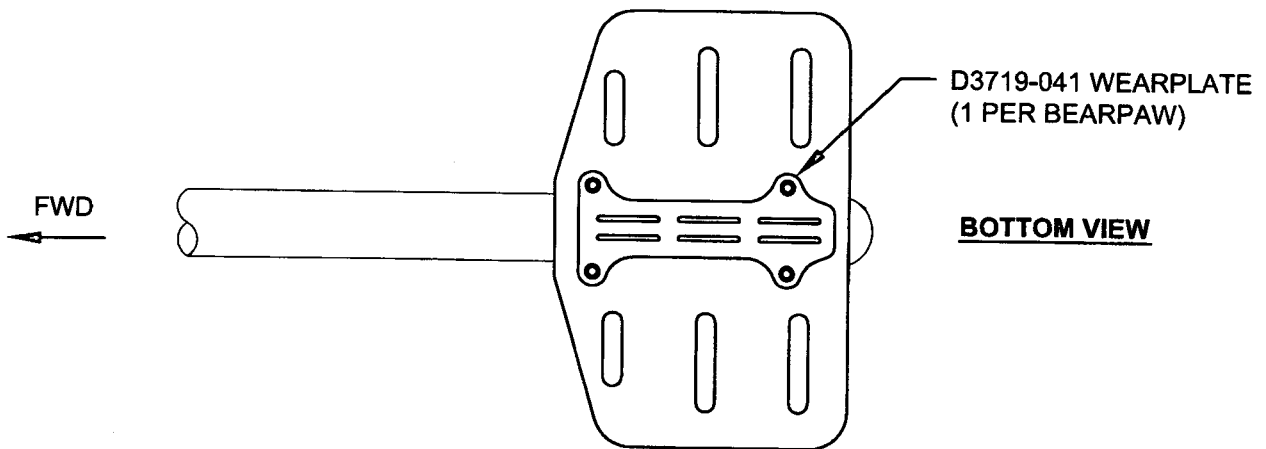
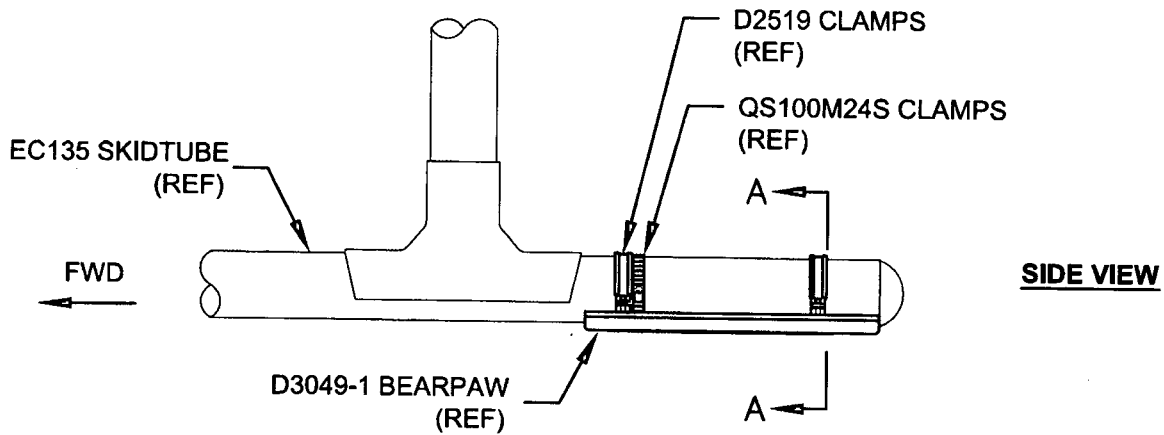
20150914

SH

136853

A	NEW ISSUE	CP	07.12.12
REV.	DESCRIPTION	BY	DATE
DESIGN	97	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	97		
CHECKED	140	DRAWING NO.	REV. A
MFG. APPR.	8	DSI 9400	SHEET 1 OF 2
APPROVED	140	TITLE	SCALE
DE APPR.	140	WEARPLATE KIT	NTS
DATE	07.12.12	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

FIGURE 1: D135-692-041 WEARPLATE KIT



* ADDITIONAL AN960JD416 WASHERS MAY BE INSTALLED UNDER THE NUTS TO ENSURE 1.5-4 THREADS IN SAFETY ON THE BOLTS. IT IS ALSO ACCEPTABLE TO REPLACE THE AN4-15A BOLTS WITH LONGER OR SHORTER AN4 BOLTS, IF REQUIRED.

DESIGN	90	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	90		
CHECKED	120	DRAWING NO.	REV. A
MFG. APPR.	E	DSI 9400	SHEET 2 OF 2
APPROVED	120	TITLE	SCALE
DE APPR.	H	WEARPLATE KIT	NTS
DATE	07.12.12	COPYRIGHT © 2007 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

DAS
02
9-89

REFERENCE ONLY

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D135-692 REV. A
REF. FAA STC: SR01042SE

The D135-692-041 Wearplate Kit can be installed on Dart D135-692-011 Bearpaw Installations. The D3719-041 Wearplates should be installed on the D3049-1 Bearpaws as shown in Figure 1 on sheet 2 of this service instruction. The bearpaw should otherwise be installed on the skidtube per installation instructions IIN-D135-692 Rev. A.

WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D135-692-041	2.24 lb	0.0 in	0.0 in-lb	199.7 in	447 in-lb
Wearplate Kit	1.0 kg	0.0 m	0.0 m-kg	5.07 m	5.1 m-kg

PARTS LIST

QTY	Part Number	Description
X	D135-692-041	Wearplate Kit
2	D3719-041	Wearplate
8	AN4-15A	Bolt
8	AN960JD416	Washer
8	MS21042L4	Nut (or MS21042-4)

A	NEW ISSUE	CP	07.12.12
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>qp</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>qp</i>		
CHECKED	<i>qp</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>qp</i>	DSI 9400	SHEET 1 OF 2
APPROVED	<i>qp</i>	TITLE	SCALE
DE APPR.	<i>qp</i>	WEARPLATE KIT	NTS
DATE	07.12.12	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	